

WE CLAIM:

1. A device for dispensing substance from a cartridge comprising:
a retaining means for retaining a substance containing cartridge;
a telescoping plunger assembly made up of a plurality of interconnecting members;
a base to which at least one of said interconnecting members is fixed; and
a drive train means for driving said telescoping plunger assembly.
2. The device for dispensing substance from a cartridge of claim 1 wherein the telescoping plunger assembly consists of a plurality of threaded, at least partially hollowed out, members each of which can be withdrawn into or upon an adjacent member when one of said members is rotated.
3. The device for dispensing substance from a cartridge of claim 2 wherein said telescoping plunger assembly is made up of at least a frontmost member, a rearmost member and at least one intervening member at least one of the intervening members is a turnbuckle which is rotated by drive train means.
4. The device for dispensing substance from a cartridge of claim 3 wherein the drive train means for driving the telescoping plunger assembly is powered by a reversible external power source connected to a drive linkage which rotates the turnbuckle.
5. The device for dispensing substance from a cartridge of claim 3 wherein the drive train means for driving the telescoping plunger assembly is powered by an internal motor connected to a drive assembly which rotates the turnbuckle.
6. The device for dispensing substance from a cartridge of claim 4 wherein the turnbuckle is rotated and the frontmost and the rearmost members do not rotate relative to each other and do not rotate relative to a transmission housing to which the rearmost member is fixed and wherein

the retaining means for retaining a substance containing cartridge is fixed relative to the transmission housing.

7. The device for dispensing substance from a cartridge of claim 5 wherein the turnbuckle is rotated and the frontmost and the rearmost members do not rotate relative to each other and do not rotate relative to a transmission housing to which the rearmost member is fixed and wherein the retaining means for retaining a substance containing cartridge is fixed relative to the transmission housing.

8. The device for dispensing substance from a cartridge of claim 6 additionally consisting of a fast rewind means comprising a turnbuckle splitting means whereby the turnbuckle longitudinally splits into two turnbuckle halves, and plunger biasing means whereby the telescoping plunger assembly may be manually compacted against the resistive force of a plurality of plunger biasing springs.

9. The device for dispensing substance from a cartridge of claim 7 additionally consisting of a fast rewind means comprising a turnbuckle splitting means whereby the turnbuckle longitudinally splits into two turnbuckle halves, and plunger biasing means whereby the telescoping plunger assembly may be manually compacted against the resistive force of a plurality of plunger biasing springs.

10. The device for dispensing substance from a cartridge of claim 8 wherein the turnbuckle splitting means is comprised of a plurality of cam slots and cam followers in an alignment cage and in a drive hub and a plurality of clearance slots in the two turnbuckle halves.

11. The device for dispensing substance from a cartridge of claim 9 wherein the turnbuckle splitting means is comprised of a plurality of cam slots and cam followers in an alignment cage and in a drive hub and a plurality of clearance slots in the two turnbuckle halves.

12. The device for dispensing substance from a cartridge of claim 10 additionally consisting of a braking means mechanism whereby the splitting of the turnbuckle is controlled by retarding the rotation of the turnbuckle.

13. The device for dispensing substance from a cartridge of claim 11 additionally consisting of a braking means mechanism whereby the splitting of the turnbuckle is controlled by retarding the rotation of the turnbuckle.

14. The device for dispensing substance from a cartridge of claim 12 wherein the braking means mechanism is comprised of a brake actuator mechanism which presses at least one friction surface of at least one brake shoe against an outer surface of the turnbuckle.

15. The device for dispensing substance from a cartridge of claim 13 wherein the braking means mechanism is comprised of a brake actuator mechanism which presses at least one friction surface of at least one brake shoe against an outer surface of the turnbuckle.

16. The device for dispensing substance from a cartridge of claim 5 wherein a passive backfeed circuit operates to reverse the direction of rotation of the turnbuckle for a brief time when the drive train means stops rotating the turnbuckle in the forward direction by reversing the direction of the internal motor for a brief time when the motor is turned off after rotating the turnbuckle in the forward direction.

17. The device for dispensing substance from a cartridge of claim 7 wherein a passive backfeed circuit operates to reverse the direction of rotation of the turnbuckle for a brief time when the drive train means stops rotating the turnbuckle in the forward direction by reversing the direction of the internal motor for a brief time when the motor is turned off after rotating the turnbuckle in the forward direction.

18. The device for dispensing substance from a cartridge of claim 5 wherein an active backfeed circuit operates to reverse the direction of rotation of the turnbuckle for a brief time when the drive train means stops rotating the turnbuckle in the forward direction by reversing the direction of the internal motor for a brief time when the motor is turned off after rotating the turnbuckle in the forward direction.

19. The device for dispensing substance from a cartridge of claim 7 wherein an active backfeed circuit operates to reverse the direction of rotation of the turnbuckle for a brief time when the drive train means stops rotating the turnbuckle in the forward direction by reversing the direction of the internal motor for a brief time when the motor is turned off after rotating the turnbuckle in the forward direction.

20. The device for dispensing substance from a cartridge of claim 14 wherein the device additionally comprises a guide mount which is adapted to receive a detachable, snap fitting joist guide.

21. The device for dispensing substance from a cartridge of claim 15 wherein the device additionally comprises a guide mount which is adapted to receive a detachable, snap fitting joist guide.

22. The device for dispensing substance from a cartridge of claim 14 wherein the device additionally comprises a guide mount which is adapted to receive a detachable, snap fitting seam guide.

23. The device for dispensing substance from a cartridge of claim 15 wherein the device additionally comprises a guide mount which is adapted to receive a detachable, snap fitting seam guide.

24. The device for dispensing substance from a cartridge of claim 14 wherein the device additionally comprises a guide mount which is adapted to receive a detachable, snap fitting adjustable guide.
25. The device for dispensing substance from a cartridge of claim 15 wherein the device additionally comprises a guide mount which is adapted to receive a detachable, snap fitting adjustable guide.
26. The device for dispensing substance from a cartridge of claim 20 wherein the device additionally comprises a detachably mountable joist guide comprising a body and arms extending downwardly from either side of said body.
27. The device for dispensing substance from a cartridge of claim 21 wherein the device additionally comprises a detachably mountable joist guide comprising a body and arms extending downwardly from either side of said body.
28. The device for dispensing substance from a cartridge of claim 22 wherein the device additionally comprises a detachably mountable seam guide comprising a body and arms extending downwardly from either side of said body.
29. The device for dispensing substance from a cartridge of claim 23 wherein the device additionally comprises a detachably mountable seam guide comprising a body and arms extending downwardly from either side of said body.
30. The device for dispensing substance from a cartridge of claim 24 wherein the device additionally comprises a detachably mountable adjustable guide comprising a body, two downwardly extending guide arms, each of said arms being pivotally mounted on a gear on a front face of said body, each of said gears having a plurality of teeth which intermesh with the teeth on the other gear.

31. The device for dispensing substance from a cartridge of claim 25 wherein the device additionally comprises a detachably mountable adjustable guide comprising a body, two downwardly extending guide arms, each of said arms being pivotally mounted on a gear on a front face of said body, each of said gears having a plurality of teeth which intermesh with the teeth on the other gear.

32. The device for dispensing substance from a cartridge of claim 14 wherein the device additionally comprises a tip cutter comprising a receiving slot, a chopping slot which intersects with said receiving slot at a fixed angle between forty-five and ninety degrees, and a guillotine blade slidably mounted in said receiving slot.

33. The device for dispensing substance from a cartridge of claim 15 wherein the device additionally comprises a tip cutter comprising a receiving slot, a chopping slot which intersects with said receiving slot at a fixed angle between forty-five and ninety degrees, and a guillotine blade slidably mounted in said receiving slot.

34. The device for dispensing substance from a cartridge of claim 14 wherein the device additionally comprises a puncture rod.

35. The device for dispensing substance from a cartridge of claim 15 wherein the device additionally comprises a puncture rod.

36. The device for dispensing substance from a cartridge of claim 14 wherein the device additionally comprises a plurality of nipples, each of which are detachably held in place by the retaining means, each nipple having a shaping surface adjacent to an orifice through which substance is expelled.

37. The device for dispensing substance from a cartridge of claim 15 wherein the device additionally comprises a plurality of nipples, each of which are detachably held in place by the retaining means, each nipple having a shaping surface adjacent to an orifice through which substance is expelled.

38. The device for dispensing substance from a cartridge of claim 14 wherein the device is made of primarily plastic or nylon material, or a combination of the two.

39. The device for dispensing substance from a cartridge of claim 15 wherein the device is made of primarily plastic or nylon material, or a combination of the two.

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